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Research Paper

Collaborative Reflection Through Blogs: Discoursal Patterns and Iranian EFL Pre-service Teachers' Comments

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Abstract

Despite the significance of writing critical recall and reflection journals for pre service teachers, a multitude number of recall and reflection journals written by them are descriptive and minimalistic. In view of this problem, the aim of this study was twofold: 1) to analyze discoursal patterns of pre-service teachers' collaborative reflection via *Edmodo*, 2) to examine if it can improve their reflective writing from descriptive to critical. To this end, a total of forty-three pre service teachers participated in the study. The participants were then required to write their reflections on their classmates' teaching performances in *Edmodo* collaboratively. To examine their improvement, the discoursal patterns of their reflective writings were analyzed using Prilla et al.'s (2015) framework. To elicit EFL pre service teachers' comments on collaborative reflection via *Edmodo,* a questionnaire was assigned to the participants, and an interview was set up to shed more light on their comments. The results indicated that some discoursal patterns of critical reflective writing had emerged in pre service teachers' recall and reflection journals. The analysis of the questionnaires and the interview also revealed that the majority of the participants agreed that *Edmodo* had had positive

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contribution to their critical reflective skill. The findings have implications for EFL practicum courses.

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1. Introduction

One of the most significant objectives of professional development in teacher education is to foster the ability of pre service teachers to reflect on their own and their classmates' teaching practice (Ashraafi et al. 2020). This aspect of professional development is one of the features of effective teachers which has received a lot of attention as a tool for greater self-awareness and professional development over the past few decades (Farrell, 2015a, 2015b; Finlay, 2008; Priddis & Rogers, 2018). The notion of reflection, as an inseparable part of teaching and learning, enables teachers to identify and solve teaching problems, and learn various aspects of their profession (Farrell, 2015b). Dewey (1933) defines reflection as "turning a subject over in the mind and giving it serious and consecutive consideration, thereby enabling us to act in a deliberate and intentional fashion. Reflection involves active, persistent and careful consideration" (p. 9).

Many professionals in the field of teacher education (e.g., Dewey, 1933; Farrell 2015 a; Finlay, 2008) have argued for the benefits of reflective writing for teacher effectiveness. They argue that teachers' reflective writings are representative of the problems they face in the process of teaching, and the solutions they adopt in reaction (Soodmand Afshar & Hosseini Yar, 2019). The basic motives behind reflective writing include assisting teachers to apply theory to practice resulting into improved classroom practice and

enabling practitioners to grow professionally through learning from classroom-based experience (Cirocki & Farrell, 2017). Reflecting on their action, in particular, moving from descriptive to critical reflection makes teachers become aware of the teaching practice, and make more informed decisions in the classroom. It is necessary for teachers to be aware of the benefits of reflective writing because it enables them to develop their reasoning power as to why they use particular kinds of teaching tasks and strategies, and how they can promote their teaching (Lee, 2005). Therefore, identifying pre service teachers' discoursal patterns helps them improve their reflective ability and resilience in coping with classroom challenges.

To encourage reflective writing, teacher educators ask pre service teachers keep recall and reflection journals, and write their reflections on their own and their classmates teaching practice in them. Recall and reflection journals are academic journals which provide a record of thoughts of pre service teachers and their experiences in learning and teaching. Evaluating teaching experiences is the primary goal of writing recall and reflection journals. It gives pre service teachers opportunity to reconstruct personal knowledge and concerns (Lee, 2005). Despite the importance of reflective writing, many pre service teachers still have no idea about how to reflect on their own or their classmates' teaching practice. The problem is that most of the reflection journals they write are considered "individualistic, minimalist, inauthentic and descriptive" (Krutka et al., 2014, p. 83). To alleviate this problem, Krutka et al. (2014) suggest using online collaborative reflection tools which help participants share their knowledge and experiences with each other in order to solve problems. In this respect, Gee (2004) states that the virtual spaces of online blogs can create an *affinity space* which they define as "a place or set of places where people can affiliate with others based primarily on shared activities, interests and goals, not

shared race, class, culture, ethnicity, or gender." (p.73). In the age of digitalization and rapid technological change, it is necessary for pre service teachers who hold the future of profession in their hands, and are supposed to develop the profession to keep pace (Krutka et al. 2014; Teräs, 2016). With the advent of digital sharing by young people, participatory cultures have emerged since technologies pave the ground for people with similar interest to collaborate, communicate, and learn from each other. Participation in on line communities can improve problem solving which is the result of the benefits of peer-to-peer learning (Jenkins et al., 2009; Khodabandeh & Naseri, 2020).

Considering the significance of pre service teachers' ability to produce effective critical journals, the current study aimed to use *Edmodo,* as an electronic discussion board, to promote pre service teachers' critical reflective writing. This is due to the fact that writing critical recall and reflection journals requires interaction with others in community to share their experiences, and learn the characteristics of an effective critical reflective practice through interacting and collaborating with others (Leijen & Pedaste, 2012; Procee, 2006). To examine the improvement of pre service teachers' recall and reflection journals, the discoursal patterns of their reflective writings written through collaborative reflection, and their comments about collaborative reflection through *Edmodo* were analyzed.

2. Background of the Study

Many pre service teachers are supposed to write recall and reflection journals to improve their reflective writing ability. However, the problem is that their recall and reflection journals constitute of descriptions of practice rather than a critical evaluation or reframing their understandings of their own or their classmates' practice (Brandt, 2008). Akyel (2000) indicates that collaborative reflection gives teachers an opportunity to examine their teaching practice

and deconstruct or transform their existing beliefs. Collaborative reflection expands awareness of their practice, helps them find out new strategies to deal with their problems, and triggers changes in connection to their teaching behaviors. Kraft (2002) also suggests that collaborative reflection creates the conditions wherein educators learn about their practice through talking about their experiences, becoming aware of their assumptions and expectations, questioning the assumptions and revising their perspectives. Hiebert, et al. (2007) proposed a framework for analyzing teaching consisting of four facets to guide teaching analysis: 1) identifying learning aims for an instructional episode, 2) conducting empirical observations on learning, 3) structuring hypotheses about the influence of teaching on students' learning, and 4) using analysis to make improvements in teaching.

The discourse of reflective writings of pre service teachers in teaching practicum classes and its contribution to the learning of pre service teachers have attracted the attention of researchers, teacher educators and teachers. Many scholars (e.g., Chung & van. Es, 2014; Zhu, 2011) emphasize the importance of fostering the ability of pre service teachers in writing critical reflective journals in the practicum courses. In this relation, Luk (2008) examined the discoursal features of high and low-grade reflective journals produced by pre service teachers. The results indicated that high-quality reflections were dialogic and critical. Zhu (2011) also described student teachers' reflective writings in a practicum teacher education class, and found that in writing recall and reflection journals, pre service teachers usually recall what happens first, and then discuss the rationale behind their actions. The findings also revealed that pre-service teachers focus primarily on "technical rationality and practical action", and they rarely deal with critical reflection or reflection on reflection (p. 772).

Collaborative reflection …

Similar to all professionals, teachers should precede to develop professionally during their career paths. Learning from experience is a key to this process (Teräs, 2016). Teräs (2016) claims that teachers should be given a professional practical, supportive and safe mentoring program in which teachers feel willing to experiment and risk making mistakes. Collaborative dialogue with peers, mentors, researchers or supervisors, gives teachers an opportunity to reflect on their individual practices (Naseri & Khodabandeh, 2019).

The use of blogging as an instructional practice has the potential to restructure teacher education programs. Blogs refer to online informational sites where individuals share regular journal style updates on a central topic. Blog readers can comment on other authors and engage in extended conversations about the topic. Blogging offers teacher educators a way to engage in ongoing and sustained conversations about their work (Yang, 2009)

Blogging can regularly expose teachers to a wide array of perspectives (Boyd, Gorham, & Justice, 2013). Teachers also have the opportunity to share their thoughts and questions about the course outside the classroom, and get feedback from their peers, and members of the larger blogging community. In doing so, they make their practice public, and enhance the quality of their instruction as well as their overall pedagogical knowledge (Lieberman & Mace, 2009).

Blogs and the act of blogging constitute communities of teachers allowing them to be intellectual contributors, giving and receiving feedback, and fostering social interactions that support their professional development (Hall, 2018). Integrating technology into learning, in communities of practice, requires teachers to (a) create meaning through regular and sustained interactions over time, (b) engage with their communities on a regular basis, and (c) reside in spaces where community members support

each other (Garrison et al., 2001). In addition, the way course experiences are designed and facilitated plays a key role in teachers' professional development (Putman, 2012). When instructors provide clear guidelines and serve as facilitators, pre service teachers are more likely to experience increased engagement, critical thinking, and participation (Garrison & Cleveland-Innes, 2005). Blogging can promote social interaction, collaboration, and critical reflection (Hall, 2018). The overall success of the community, or any individual within it depends on what its members create, how they participate within it, and how colleagues and instructors support it (Caudle, 2013).

Research on blogging has rarely focused on its contribution to support learning in teacher education classrooms (Goktalay, 2015). The studies using blogs have mostly focused on applying them in language classrooms. The studies using the reflective capacity of blogs are scant (Hanuscin et al., 2014). However, giving instruction on how to write critical reflection can reshape teachers' pedagogical assumptions and practices (Prestridge, 2014).

Collaborative reflection can be carried out either in online or face-to-face settings with teachers or peers. Some studies examined learners' collaborative reflection with the teacher in face-to-face or online settings (e.g., Morris & Stew, 2007). Generally speaking, these studies emphasize the affordances of the online tools for collaborative discussion. Studies regarding learners' collaborative reflection with their peers, and what they learn from each other in an online environment are scant. In this respect, Yang (2009) examined the use of blogs as a reflective tool for training EFL student teachers in Taiwan. They used blogs as a platform to critically reflect on their learning processes, and explore the role blogs play on their professional growth. To do so, the participants included forty-three student teachers in two teacher-education programs. Two instructors created a blog as a discussion forum to involve

Collaborative reflection …

teacher-students engagement and to examine their own reflection process. The participants believed that technology can provide a useful platform for reflecting and communicating with each other.

Likewise, Burhan-Horasanli and Ortactepe (2016) examined in-service EFL teachers' reflective practice conducted online. The findings of their study indicated that teachers benefit more from collaborative reflective practice through online platforms. In the same vein, Petko et al. (2017) examined the use of weblogs in teacher education classrooms and its impact on pre service teachers stress level, self-efficacy and reflective abilities. The results indicated that weblogs had effect on students' self-efficacy; however, it did not have any impact on their stress level and ability for reflection. In another study, Hall (2018) examined the use of blogging as an instructional practice in teacher education classrooms. The findings of this study demonstrated that teachers are unlikely to engage in critical reflection either in their writing of blog posts or in the comments they leave without support. However, providing structures that support critical reflection can restructure teachers approach towards blogging, and change their view towards literacy learning and instruction.

As the review of literature indicates, the findings of the studies conducted in the area of blogging have culminated in contradictory results, and none of them have revealed hidden factors responsible for fostering critical reflective writing. Therefore, the current study aimed to apply *Edmodo*, as a tool to improve critical reflection, and identify the discoursal patterns of collaborative reflection and the participants' comments in this relation. In view of these aims, the following research questions were formulated:

1. What are the discoursal features of EFL pre-service teachers' collaborative reflection while using blogs?

2. What are the comments of EFL pre-service teachers about teachers' blogs?

3. Method

3.1 Participants

A total of forty-three senior students (4 males and 39 females) studying teaching English as a foreign language (TEFL) participated in the present study. Their age ranged from 22 to 27. The participants were selected via convenience sampling method. The reason for applying this kind of sampling was availability of the participants passing practicum course in the semester when the study was conducted. In the time of conducting this study, only *Sheikhbahaee university* in Isfahan offered practicum teaching course where the data were collected.

3.2 Instruments

Three instruments, a questionnaire, a set of semi-structured interview questions and *Edmodo*, as an electronic discussion board, were used to collect the required data.

3.2.1 The Questionnaire

The questionnaire administered to the participants aimed to elicit their comments about collaborative reflection via *Edmodo*. The questionnaire was developed by Krutka et al. (2014) to elicit students' comments about online reflections via electronic discussion boards, and was administered to the participants online. It is noteworthy that it was first translated into Farsi and piloted to identify questions that do not make sense to the participants, or problems that might lead to biased answers. Then, the questionnaire was edited on the basis of the feedbacks received from the students in the pilot study. The questionnaire contained 15 5-point Likert scale questions ranging from strongly agree to no idea. In addition, three open-ended questions were included in the questionnaire.

3.2.2 A structured Interview

A structured interview was arranged to elicit the participants' comments regarding collaborative reflection via *Edmodo*. Structured interviews are similar to verbal questionnaires, and let the researchers compare the answers of different participants. The researcher recorded pre service teachers' voices and then transcribed them. The questions asked are as follows:

1. How did you find the practice of collaborative reflection via *Edomodo*?

2. What are the positive points of collaborative reflection via *Edmodo*?

3. What are your complaints of collaborative reflection via *Edmodo*?

3.2.3 Edmodo

The participants were asked to write their comments about the teaching performance of their classmates in *Edmodo*. *Edmodo*, as an educational blog, offers a friendly setting for students to collaboratively communicate not only with their classmates but also with the teacher. It enables them to send and reply comments, send photos and upload videos. The teacher can also post class room materials, and pin their classroom news in *Edmodo*. One of the reasons for selecting *Edmodo* to conduct this study is that it has the option for the participants to reply to previous comments, and enables teachers to divide the class into sub-groups, and also enables students to interact with each other as well as with the teacher. *Edmodo* can be accessed in the form of blogs and apps; therefore, students could easily install it on their cellphones. Another reason is that it has the option for the students to reply to previous comments posted by their classmates. Another point favored by most of the students is that they can like other comments. Commenting through emojis and stickers is another advantage of *Edmodo*. *Edmodo* also has the option to send videos or photos. In addition, *Edmodo* enables teachers to organize the class in the form of sub-groups; however, in other application one can have only one main group. Furthermore, *Edmodo* enables students to interact with

other students as well as the teacher. *Edmodo* can be accessed both in the form of website and application.

3.4 Procedure

Initially, a number of *PowerPoint* slides, as shown in figure 1, were prepared to introduce the processes of installing and logging to *Edmodo*.
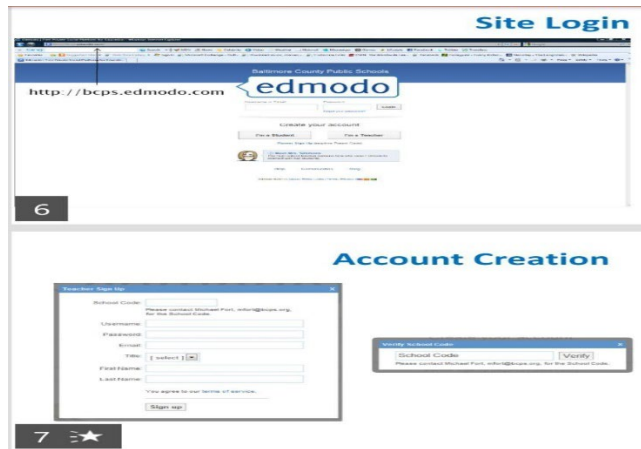

Fig. 1. Screenshot of *Edmodo* account creation page

At the end of the *PowerPoint* presentation, students were given the chance to ask any question regarding downloading, logging into, and posting comments to *Edmodo*. The participants were then required to write their reflections on their classmates' teaching performances in *Edmodo* collaboratively throughout the whole semester (16 sessions). Each week on Saturday at 10 p.m. students were required to be online, and write their reflections on what their classmates had presented on that day. Students uploaded the videos of their classmates' teaching performance, so that all the students, even those who were absent, were able to write their reflections in *Edmodo*. Finally, 488 comments were collected and analyzed on the basis of collaborative reflection model suggested by Prilla et al. (2015) to identify the discoursal patterns of collaborative reflections. It is noteworthy that to ascertain the reliability of the analysis, the researcher asked a Ph.D. candidate

Collaborative reflection …

of TEFL to read and analyze the data. Finally, in order to estimate the reliability coefficient of the analysis Cohen's kappa test was applied and yielded K = 0.63.

To elicit EFL pre-service teachers' perceptions of *Edmodo*, a questionnaire was sent to the students through *WhatsApp*, *Telegram* or e-mail. Finally, the participants were asked to participate in a structured interview to express their comments about collaborative reflection practice.

3.5 Theoretical Framework of the Study

The study applied the framework proposed by Prilla et al. (2015) to analyze the discoursal patterns of collaborative reflection of students conducted in *Edmodo*. There are certain reasons for the use of this framework. The first one is that analyzing content requires a model of what is analyzed, that is, "a theoretical base and operational translation" of collaborative reflection (De Wever et al. 2006). The second reason for applying this model is that it is comprehensive, and is an improved version of previous models existing in the literature (e.g., Raelin, 2002). Another important reason is that it includes interactive elements of electronic discussion boards such as "questions triggering discussion" and "question for information on the interpretation". In addition, this model also allows for identifying levels of reflection (Prilla et al., 2015), and is one of the recent models proposed for analyzing teachers' collaborative reflection practice. Table 1 indicates the constituents of this model.

Table 1
Prilla et al. Model of Discoursal Patterns of Collaborative Reflection

patterns	Definition	Examples of participants' comments on Edmodo
Mentioning the issues or good practice based on the teaching	Shared description enables users to return to the practice	Her feedback to students was effective because of creativity and the use of humor.

experiences of their classmates		
Mentioning their own emotions in an experience	The role of author's emotion	---------------------------------------
Mentioning emotions of others in an experience	To distinguish others personal feelings	---------------------------------------
Interpretation or justification of actions and situations	Pointing out specific issues	The class was boring because it was more teacher centered
Linking an experience to others' experiences	Talking about the same experience	---------------------------------------
Linking an experience/ event to teaching knowledge, rules or values	Linking experiences to existing solution (not necessarily explicitly)	she did not give feedback to students when they made a mistake, for example she could have used peer correction strategy
Responding to interpretation of the action by challenging the existing interpretation/ situation or suggestion or adding perspectives	Asking questions to engage others and affect other's performance	His teaching was like a presentation am I right? It contained information without explanation and emphasis, and he taught us grammar explicitly with no exercise.
Responding to interpretation of the action/ situation by supporting interpretation or	Showing agreement or disagreement and giving a suggestion in the latter one	Dear Zahra, thanks for your suggestion, I agree, it was better if students had role play through collaborative reflection.

Collaborative reflection …

suggestion		
Giving advice without a reason or reference to experience	------------------------------ --	My suggestions for you are as follows: try to be active in class, walk around and use your hands.
Proposing solutions/ suggestion with a reason or link to experience	------------------------------ --	According to my class experience, students like solving puzzles more than answering some questions, and it was a good strategy to encourage students to participate in the class
Insights from reflection as a single-loop : different or better understanding of experience	Participants gain a better understanding of one experience	-------------------------------------- --
Insights from reflection as double-loop learning: Generalizing from experiences.	Participants draw more general conclusion	-------------------------------------- --
Drawing conclusions and implications from reflection by suggesting to apply new practice or reporting on changes done or planned	Role of comments in change	Thanks for your comments guys. The main reason that I could make it better was that I saw your comments last night and I tried to work on my weak points.

Question for information on the action/interpretation.	Asking question/s for more information or lack of knowledge	May I ask what do you mean by " standard of fashion teacher"? I don't know. Thanks
Questions triggering discussions	Question to initial and provoke discussion	-------------------------------------- -

4. Data analysis
4.1 Analysis of the Discoursal Patterns of Preservice Teachers' Reflective Writings in Edmodo

Table 2 presents the frequency and percentage of the discoursal patterns of

the reflective writings of the participants in *Edmodo*.

Table 2

The Discoursal Patterns of the Pre service Teachers' Reflective Writings

Item	Frequency (N)	Percentage (%)
Describing issue or good practice	9	7.03
Interpretation or justification of actions and situations	6	4.68
Linking an experience to knowledge, rules or values	16	12.5
Responding to interpretation of the action by challenging existing interpretation or suggestion or adding perspectives	8	6.25
Responding to interpretation of the action by supporting interpretation or suggestion	28	21.875
Giving advice without a reason or reference to experience	24	18.75
Proposing solution/ suggestion with a reason or link to experience	30	23.43
Drawing conclusions and implications from reflection by suggesting to apply new practice or reporting on changes done or planned	1	0.78
Question for information on the action/interpretation.	6	4.68
	Total=128	Total=100

As Table 2 indicates, proposing solution/ suggestion with a reason or link

to experience is the most frequent discoursal pattern occurring in

collaborative reflection of pre service teachers in *Edmodo* (N = 30).

However, drawing conclusions and implications from reflection by

suggesting to apply new practice or reporting on changes done or planned is the least occurring feature.

4.2 Results of the Analysis of the Questionnaire

Table 3 indicates the results of the analysis of the preservice teachers' responses to each question in terms of frequency and percentage.

Table 3
Results of the Analysis of the Questionnaire

	Strongly agree	agree	disagree	Strongly disagree	No Idea
1)I feel that *Edmodo* was valuable for reflecting.	28%	62%	7%	3%	0%
2) I feel that *Edmodo* was valuable for reflecting upon field experience.	24%	62%	10%	3%	1%
3) The posts and replies of my peers have helped me to grow as a teacher-candidate.	34%	41%	17%	7%	1%
4) The replies of my peers helped me think about the field of teaching in new ways.	28%	48%	24%	0%	0%

5) I interacted with most of my classmates on.	10%	66%	10%	14%	0%
6) I tended to interact more with my peers from my content area.	10%	66%	10%	14%	0%
7) I feel that I provided a valuable contribution to my classmates on Edmodo.	10%	66%	10%	14%	0%
8) I would consider using Edmodo in the future for collaborative reflection	24%	45%	10%	14%	7%
9) I felt comfortable disagreeing with, or challenging, the posts of my peers.	10%	52%	28%	3%	7%
10) I did not feel that replies of my posts helped me grow as a teacher-candidate	3%	28%	55%	7%	7%

Collaborative reflection …

11) The weekly posting requirements felt burdensome	10%	41%	34%	14%	1%
12) I tended not to respond to long posts	4%	41%	34%	14%	7%
13) I usually just replied to posts close to mine.	21%	69%	7%	3%	0%
14) Edmodo is user-friendly	21%	69%	7%	3%	0%
15) I only read a small percentage of class posts	4%	31%	48%	7%	10%

A general overview of Table 3 indicates that the majority of preservice teachers either strongly agree or agree with items 1 and 2 which ask the role of collaborative reflection in improving their reflective ability. They also predominantly either strongly agree or agree with items 3and 4 which ask the role of collaborative reflection in improving their teaching skill. Items 5,6,7are related to the role of collaborative reflection in fostering interaction among participants, and the majority of the participants agreed with them. Furthermore, the majority of them either strongly agreed or agreed with item 8 which was about their preference for using *Edmodo* in their own classrooms. Moreover, a multitude number of participants felt comfortable disagreeing with, or challenging, the posts of their peers (item 9). However, most of them disagreed with item 10 which was related to the role of their posts in Edmodo to help them grow as a teacher-candidate. A large number of them also agreed with items 11,12,13 which considered posts as burdensome. Many of them also had consensus that Edmodo is user-friendly (item 14), and some of them agreed that they do not go through the whole posts.

4.3 Results of the Analysis of the Interview

Table 4 indicates the emerged themes of the answers to the interview questions.

Table 4
Analysis of the Interview Questions

Theme	percentage	Example
Enhancing motivation to participate in reflective practice	21%	Writing in *Edmodo* is extremely motivating.
Expressing feelings and emotions.	15%	Reflection in *Edmodo* gives us the opportunity to better express our feelings about our classmates'

		teaching performance through use of stickers.
Prestige	9%	It was so prestigious when we used *Edmodo* for our class activities.
Collaboration and interaction	40%	We think together. We see that we are not alone. We are all in the same boat.
Sharing experiences, enhancing critical thinking, justifying our teaching practice	10%	Through using Edmodo, we learn some new aspects of teaching' Through collaborative reflection, we found our weakness and tried to remove them.

Only 5% of the participants had negative comments about collaborative reflection through *Edmodo*. In this relation, they complained that "other students read our comments; however, we do not like it because we may write mistakenly and this makes them judge us, I believe that journal reflection is better in that only the teacher reads it".

5. Discussion and conclusion

Viewing the descriptive nature of recall and reflection journals written by pre service teachers, the current study aimed to foster collaborative reflection through *Edmodo* among pre service teachers, and elicit their comments about the role of collaborative reflection in changing their reflective skills from descriptive to critical. To examine the enhancement of their reflective skills, discoursal patterns emerging in *Edmodo*, as a tool to foster collaborative reflection were analyzed. The results indicate that in addition to describing the teaching practice of their classmates, some patterns such as justifying their actions, linking their experience to knowledge, proposing solution/suggestion with a reason and other patterns mentioned in Table 2 above were added to the discourse of the reflective writings of pre service

teachers. This can be due to the fact that pre service teachers were engaged in a group having similar interests since as Krutka et al. (2014, p. 84) believe, "reflection could be deepened when engaged in communion with similarly-interested peers who could push each other beyond description to thoughtful reconsideration of subjective and objective conditions via substantive exchanges". They go on to say that collaborative reflection can trigger new perspectives in mind as we communicate with others who might view situation from a different angle.

The pre-service teachers believe that they enjoyed the community of support within *Edmodo*. The collaborative peer-to-peer learning gives students opportunity to support each other, brainstorm solutions, and reflect upon issues. In this relation, one of the students stated that "I like it because I can reflect on my classmates' teaching performance easily". Mills and Chandra (2011) assert that *Edmodo* makes a community of support among learners that cannot be found in written reflection. This finding is consistent with Lee (2010) who believes that online microblogging heightens pre-service teachers' self-confidence. In addition, analysis of pre-service teachers' collaborative reflections indicates that *Edmodo* can enable students to reflect and describe their learning, and to increase teacher-student and student-student interactions. Some of the comments written by students are as follows: "Edmodo is an interesting application that increases interaction between teacher and students". All of the members are active in *Edmodo*. In this regard, the findings of the study are consistent with Killeavy and Moloney's (2010) findings of the study in that the participants believed that the blog developed their reflection skill since it facilitated interaction among them. "I learn many new points from my friends during collaboration, and it's a good idea to provide a situation to have more interaction with each other, and it helps me to improve my teaching and learning".

Collaborative reflection …

One negative comment of collaborative reflection mentioned by participants in the interview was that giving comments in a place where others can see can be face- threatening. In this respect, one of the participants wrote "I prefer individual reflection practice because during collaborative reflection all of my friends and my classmates can read my massages and if I write something wrongly, I will be ashamed". Fear of being judged is another psychological aspect, for instance one of the participants commented that: "I don't like collaborative reflection because by sending my massages others can criticize my English proficiency, and also there is the possibility that my teacher judges me based on my comments on *Edmodo*". This finding complies with Yates and Nguyen (2012, p. 24) who posit that there is a "reluctance to stand out from peers by expressing personal ideas because of others judgment".

Overall, the results indicate that pre-service teachers found collaborative reflection highly useful in improving their critical reflective skill. Since collaborative reflection by fostering interaction among the members can cultivate a sense of community in them, and decrease the feelings of isolation. Furthermore, the teacher is not the only director of the class and the students collaborate with each other to reflect on their peers' performance. In recall and reflection journals, students have only their own voices and students are unaware of each other.

The most prominent advantage of collaborative reflection, as cited by the pre-service teachers, was psychological as 40% of the participants stated that in collaborative reflection "We think together. We see that we are not alone. We are all in the same boat". Therefore, the rippling effect of Yalom's group psychotherapy can account for this finding. Yalom (1970) believes that we can relay effect on other people, the same way that ripples in a pond go on and on "until they are no longer visible but continuing at a nano level." In conclusion, the results

show that through collaborative reflection, pre-service teachers can enhance their reflection ability. The present study raises the importance of reflection practice for pre-service teachers during teacher education program. Consequently, the findings of the study can help teacher educators to redesign the reflection practice and to shift it from minimalist and descriptive reflection practice to collaborative one.

The findings have implications for teacher education classrooms. A future study can replicate the study to examine the comments of pre service teachers in different contexts with different cultures. This study can be replicated using other models of collaborative reflection. Most important of all, future research can open new avenue of research studying the contribution of theories of psychotherapy, such as Irvin Yalom's theory of group psychotherapy to teacher education.
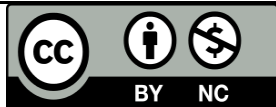
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